BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Drilling of Bore well and Providing Pipeline in Ward No.11 (Kuvempunagara), Vidyaranyapura Sub Division.

Estimated Cost : Rs. 35.00 Lakhs

Head of Account : P-1802 Water Supply new areas

Job Code: 011-20-000123

Name of Agency: Sri. B. Chandrashekar, No. 28, Anjaneya Swamy Layout, 1st Main Road, Thindlu, Vidyaranyapura (Post), Bangalore - 560 097.

Work order No: BMP/EE/BTP/WO/27/2020-21 D: 23-06-2020.

Measurements Recarded on : 11-09-2023

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction								
		Each BW							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 01 is =						**4**	3428.88	**13716.00**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,)								
	0 to 50 m	Rmtr							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	315.77	**63154.00**
3	**50 to 100 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	402.22	**80444.00**
4	**100 to 150 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	414.96	**82992.00**
5	**150 to 200 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	487.76	**97552.00**
6	**200 to 250 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	576.94	**115388.00**
7	**250 to 300 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	637.00	**127400.00**
8	**300 to 350 m**								
	Qty as per Premeasurement Recorded vide E-Bill Page No. 02 is =						**200.00**	750.75	**150150.00**
9	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty								

Assistant Engineer

Contractor

Assistant Executive Engineer

Assistant Executive Engineer
Vidyaranyapura Sub Division

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Qty as per Premeasurement Recorded vide E-Bill Page No. 03 is =						**320.00**	1255.80	**401856.00**
10	Providing 250mm dia PVC Pipe 6kg/cm								
		Rmtr							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 04 is =						**72.00**	1001.00	**72072.00**
11	Providing and fixing Borewell Cap & Clamp Set								
		Set							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 05 is =						**4**	1638.00	**6552.00**
12	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps								
	15 HP 30 Stage	No							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 06 is =						**3**	57783.18	**173350.00**
13	GI Pipe 50 mm'B' class								
		Mtrs							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 07 is =						**1050.00**	377.65	**396533.00**
14	Heavy Duty Collar 50 mm dia								
		Nos							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 08 is =						**177**	163.80	**28993.00**
15	Providing non-return valve 50 mm								
		Nos							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 09 is =						**3**	1638.00	**4914.00**
16	Providing Gate Valve 50 mm								
		Nos							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 10 is =						**54**	1638.00	**88452.00**
17	Supplying and Fixing Out Door Panel up to 15 HP								
		No.							
	1. Defence Layout near Burial Ground		1				1		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1				1		
	Additional Pumpset Singapura Layout 1st Main		1				1		
							3	14105.00	**42315.00**
18	Submersible Cable 1x3x6.0 Sq.mm								
	1. Defence Layout near Burial Ground	Mtrs							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 11 is =						**1920.00**	131.04	**251597.00**
19	Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00)								

Assistant Engineer Contractor Assistant Executive Engineer

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
		Per Length							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 12 is =						**162**	80.08	**12973.00**
20	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws.,								
		Each							
	1. Defence Layout near Burial Ground		1				1		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1				1		
	Additional Pumpset Singapura Layout 1st Main		1				1		
							3	265.72	**797.00**
21	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975GROUP-A								
		Mtr							
	1. Defence Layout near Burial Ground		1	30.00			30.00		
			1	5.00			5.00		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1	30.00			30.00		
			1	4.80			4.80		
	Additional Pumpset Singapura Layout 1st Main		1	30.00			30.00		
			1	6.50			6.50		
							106.30		
							105.00	136.50	**14333.00**
22	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. **(6Sqmm to 16 Sqmm)**								
		Mtr							
	1. Defence Layout near Burial Ground		1	30.00			30.00		
			1	5.00			5.00		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1	30.00			30.00		
			1	4.80			4.80		
	Additional Pumpset Singapura Layout 1st Main		1	30.00			30.00		
			1	6.50			6.50		
							106.30		
							105.00	10.81	**1135.00**
23	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.								
	For Cutting Road Surface	Mtr							
	1. Defence Layout near Burial Ground		1	30.00			30.00		
			1	2.20			2.20		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1	28.50			28.50		
	Additional Pumpset Singapura Layout 1st Main		1	30.00			30.00		
			1	1.20			1.20		
							91.90		
							90.00	69.16	**6224.00**
24	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.								
	40mm dia GI pipe	Mtr							
	1. Defence Layout near Burial Ground		1	4.00			4.00		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1	4.00			4.00		

Assistant Engineer

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Additional Pumpset Singapura Layout 1st Main		1	4.00			4.00		
							12.00	304.85	**3658.00**
25	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.								
	16Sqmm	No.							
	1. Defence Layout near Burial Ground		1				1		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1				1		
	Additional Pumpset Singapura Layout 1st Main		1				1		
							3	245.70	**737.00**
26	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia,								
		No							
	1. Defence Layout near Burial Ground		1				1		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1				1		
	Additional Pumpset Singapura Layout 1st Main		1				1		
							3	2729.73	**8189.00**
27	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.								
	32 Amps	No.							
	1. Defence Layout near Burial Ground		6				6		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		6				6		
	Additional Pumpset Singapura Layout 1st Main		6				6		
							18	158.34	**2850.00**
28	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. **6-32Amps**								
		No							
	1. Defence Layout near Burial Ground		1				1		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1				1		
	Additional Pumpset Singapura Layout 1st Main		1				1		
							3	1560.65	**4682.00**
29	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete								
	16SWG	Sq.Cm							
	1. Defence Layout near Burial Ground		1x2	120.00	60.00		14400.00		
			1	360.00	25.00		9000.00		
	4. Kuvempunagara 1st Stage Samudaya Bhavan Road		1x2	120.00	60.00		14400.00		
			1	360.00	25.00		9000.00		
	Additional Pumpset Singapura Layout 1st Main		1x2	120.00	60.00		14400.00		
			1	360.00	25.00		9000.00		
							70200.00	0.32	**22464.00**

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
30	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strata by Manual Means.								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 13 is =						**190.80**		
	Qty upto 125%						**121.50**	238.42	**28968.00**
	Qty above 125%						**69.30**	194.22	**13459.00**
31	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc.,								
	75 mm dia 6 KSC PVC pipe	Rmtr							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 14 is =						**530.00**		
	Qty upto 125%						**337.50**	188.37	**63575.00**
	Qty above 125%						**192.50**	191.12	**36791.00**
32	Filling the foundations KSRRB 2100-6. Filling the foundations trenches using approved sand as per drawing and technical specifications in 250mm layers, wherever necessary watering and ramming, including cost of all materials, labour complete as per specifications.								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 15 is =						**63.60**		
	Qty upto 125%						**40.05**	2931.42	**117403.00**
	Qty above 125%						**23.55**	2179.42	**51325.00**
33	Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including watering, consolidation in layers of 15 cm thick including disposing of the sunplus earth with a lead of 200 mtrs								
		Cum	Qty. Vide Item No. 25-27				**101.76**		
	Qty upto 125%						**81.45**	93.73	**7634.00**
	Qty above 125%						**20.31**	93.74	**1904.00**
	EIRL								
E1	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 16 is =						**7.26**	282.75	**2053.00**
E2	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications.								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 17 is =						**0.73**	5560.16	**4059.00**
E3	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 18 is =						**3.06**	5428.02	**16610.00**

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
E4	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification.								
		Sqm							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 19 is =						**4.80**	238.26	**1144.00**
E5	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate								
		Cum							
	Qty as per Premeasurement Recorded vide E-Bill Page No. 20 is =						**0.45**	5734.36	**2580.00**
E6	Providing **precast slab of 230mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge - Data rate								
		Sqm							
	1. Defence Layout near Burial Ground Covering Slab		1	2.20	2.20		4.84		
							4.84	4584.17	**22187.00**
	Sub Total								**2645164.00**
	Add GST @ 18%								**476130.00**
	BESCOM DEPOSIT 2430+118+12630=15178		2						**30356.00**
	Total								**3151650.00**

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Assistant Engineer Contractor Assistant Executive Engineer